AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

Please replace the first paragraph of page 9 with the following replacement paragraph:

The material of the present invention is prepared by repeated application of a two-step process. In a formation step, a sub-coalescent amount of a non-single crystalline silicon material is formed. A sub-coalescent amount is an amount of material that is insufficient to provide full coverage of the surface upon which it is formed. Instead, portions of the surface upon which formation occurs remain uncovered and growth of the ultimate semiconductor body does not occur in a layer-by-layer fashion. The sub-coalescent structures that are formed in the formation step contain a high fraction of surface atoms and possess ~~possesses~~ a distorted bonding configuration. The formation step can be accomplished by a variety of methods including physical vapor deposition, chemical vapor deposition, plasma-enhanced chemical vapor deposition, laser ablation sputtering, and evaporation. Representative suitable reactants for this step include SiH_4, Si_2H_6 and related silicon compounds either undiluted or diluted with H_2. The purpose of the formation step is to provide sub-coalescent structures that will subsequently be stabilized and incorporated into the body of the ultimate semiconductor to be prepared.

Please replace the paragraph spanning the last three lines of p. 23 through the first five lines of p. 24 with the following replacement paragraph:

The present non-single crystalline semiconductor material comprised of an assembly of coordinatively irregular structures is distinguished from the ordered cluster material of

U. S. Pat. No. 5,103,284 and the intermediate range order material of U.S. Pat. No. 6,087,580 in that, no atomic scale thickness aspect is associated with the ordered clusters or intermediate range order material. The coordinatively irregular structures of the present invention require an atomic scale thickness in one or two directions ~~direction~~. This thickness requirement produces the reduced dimensionality and unconventional chemical bonding that is responsible for the unexpected electronic properties of the coordinatively irregular structures of the present invention.

Please replace the paragraph spanning the last three lines of p. 33 through the first eight lines of p. 34 with the following replacement paragraph:

Referring now to Figure 3, there are shown plots of the deposition rate and refractive index of different silicon-based embodiments of the present invention. The data were obtained on ultimate semiconductor bodies produced upon application of several cycles of constant duration formation and treatment steps. The deposition rate provides a measure of the rate of change of the overall thickness of the ultimate semiconductor body as a function of the duration of the treatment step. The time basis for the deposition rate is the time associated with the deposition steps over all cycles and does not include ~~included~~ time associated with the treatment step. The hydrogen treatment time axis refers to the treatment time associated with one treatment cycle. The deposition rate data show a decrease in deposition rate with increasing hydrogen treatment time and are consistent with increased etching as the treatment time increases, in agreement with the Raman data.

Please replace the last paragraph on p. 39 with the following replacement paragraph:

Although much of the foregoing discussion has focused on non-single crystalline silicon and germanium materials containing hydrogen and/or fluorine, the present non-single crystalline material comprising an assembly of coordinatively irregular structures can be prepared with a variety of compositions. It is to be recognized, for example, that the scope of the present invention extends to hydrogen and/or fluorine containing alloys of silicon with carbon, germanium, nitrogen and oxygen as well as to the n-type and p-type variations of each composition. Treatment gases such as oxygen, nitrogen, and/or argon are also within the scope of the present invention. The foregoing drawings, discussion and descriptions are not intended to represent limitations upon the practice of the present invention, but rather are illustrative thereof. It ~~If~~ is the following claims, including all equivalents, which define the scope of the invention.

RECORDATION OF SUBSTANCE OF INTERVIEW

Applicant's representative, Kevin L. Bray, conducted a telephonic interview with the Examiner on May 29, 2003. The interview focused on claim 1 in view of the Ovshinsky reference (US 6,087,580). Applicant's representative distinguished the atomic aggregates of the Ovshinsky material from the coordinatively irregular structures of the material disclosed in Appl. 09/971,881 on the basis of distortions from a regular tetrahedral bonding configuration. The Examiner suggested that the coordinatively irregular structures be more defined such as by indicating that they have non-tetrahedral bonding configurations or bonding distortions from regular tetrahedral coordination. Applicant's representative agreed to the Examiner's suggestion and has amended claim 1 accordingly (see Claim Amendments below). Applicant's representative further agreed to provide a declaration from Applicant indicating that the atomic aggregates of the Ovshinsky material do not exhibit distortions from tetrahedral bonding.